

PATENT SPECIFICATION

921,980

DRAWINGS ATTACHED.

Inventor:—BRUCE SAMWAYS.*Date of filing Complete Specification*: June 23, 1961.*Application Date*: July 25, 1960. No. 25814/60.*Complete Specification Published*: March 27, 1963.*Index at Acceptance*:—Classes 94(2), E2(G5:H:K1); and 146(2), B1(A:C:F:V).*International Classification*:—B65d (B31b).

COMPLETE SPECIFICATION.

**Improvements in or relating to Containers Manufactured from
Heat-Sealable Wrapping Material.**

- We, COLODENSE LIMITED, a Company organised according to the laws of Great Britain and Northern Ireland, of West Street, Bristol 3, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—
- This invention relates to containers manufactured from heat-sealable wrapping materials and in particular to pouches for packaging goods such as tobacco.
- It is known to package goods, such as tobacco, in sealed pouches manufactured from flexible heat-sealable wrapping materials and so designed that on the pouch being opened to gain access to the goods, it forms a convenient container during the period of consumption of the goods.
- For example, in British Patent Specification No. 486,154, there is described the manufacture of moisture-proof pouches from rectangular blanks of a laminate of metal foil and paper having on the exposed surface of the metal foil a coating of uncured rubber. The blank is doubled intermediate its ends to form pouches and flap portions and the edges of the pouch portion are permanently sealed by pressure. The mouth of the pouch is temporarily closed after filling the pouch with goods by pressing or creasing the pouch portion transversely below the mouth opening which results in a line contact between opposite sides of the mouth.
- Further, in British Patent Specification No. 540,414, there is described a hermetically sealed pouch for tobacco or other commodities manufactured from a rectangular blank of a flexible, moistureproof and greaseproof material coated with a non-tacky thermoplastic cohesive material such as rubber hydrochloride, to render the material heat-sealable. One end of the blank is folded over with the thermoplastic coating inside and the edges are sealed to form a pocket section, while the other end is folded over to form a flap section covering the mouth of the pocket section. When the pocket section is filled with tobacco or other goods, the mouth of the pocket section is sealed transversely across by heat-sealing means to produce a seal which maintains the contents in a moistureproof condition but which may readily be opened by the consumer.
- Owing to the presence of the flap, these pouches of the prior art are somewhat difficult to fill and seal across the mouth when filled, particularly on high speed filling machinery.
- The object of the present invention is to provide an envelope of improved design, which may readily be filled and closed yielding a sealed, easily openable pouch convenient for storing the goods until consumed.
- Accordingly, the present invention comprises a rectangular blank of a flexible wrapping material, one side of which is heat-sealable, one end of the blank being folded over against the body of the blank with the heat-sealable side inwards to form a pouch member, the opposite end of the blank being folded over along a line transversely across the body of the blank not covered by the pouch member to form a flap member which overlaps the free end of the pouch member

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folded over along a transverse line 4 above the free end 5 of the pouch member 2 to form a flap member 6 which overlaps the free end 5. The flap member 6 is heat-sealed to the pouch member 2 along a transverse strip 7 remote from the free end 8 of the flap member 6, thus leaving a free edge which can be gripped by the fingers.

The envelope is then completed (Figure 2) by heat-sealing one edge 9, preferably between ribbed heat-sealing jaws, when the edge of the pouch member 2 is securely sealed (coated surface to coated surface) to the body 3 of the blank 1. Also, the edge of the flap member 6 is sealed to the edge of the pouch member 2 (coated surface to paper) and to the body 3 above the free end 5 (coated surface to coated surface). The area of sealing the edge 9 is shown in Figure 2 by the numeral 10.

The envelope may readily be filled with tobacco through the open end or mouth at the other edge 11 either by hand or by means of standard bag filling machinery followed by sealing along the edge 11 as described with respect to the edge 9.

The tobacco is now securely enclosed within a sealed pouch which owing to the moisture and gas impermeability of the paper/foil laminate will retain its natural moisture content and flavour for a considerable time while in transit between the supplied and consumer.

On purchase of the filled pouch, the consumer pulls the flap member 6 which breaks the seals along the strip 7 and the edges 9, 11 (Figure 3) exposing an opening 12 at the end 5 from which the tobacco 13 may be dispensed as required. As the seals are between coated surface and paper and are much weaker in strength than the seals between coated surface and coated surface at the edges of the pouch, the flap member 6 readily peels open without tearing open the edges of the pouch containing the tobacco. At the edges 9, 11 above the mouth 12 where the seal is between coated surface and coated surface, a little more force is required to peel back the flap member 6 to its fullest extent, but this force has no opening effect upon the seals between the pouch member 2 and the body 3 at the edges 9, 11.

Figures 4, 5 and 6 show another form of envelope and resultant pouch similar to that described in Figures 1, 2 and 3, like numerals being employed.

In the example, the blank 1¹ is a laminate of aluminium foil (0.009 inch in thickness), paper (Glazed Imitation Parchment having a weight of 18 pounds per 480 sheets of size 20 x 30 inches) and polyethylene (0.002 inch in thickness), the polyethylene sheet component of the laminate forming the heat-sealable surface. The flap

member 6¹ is formed by folding along a transverse line 4¹ substantially coincident with the free end 5¹ of the pouch member 2¹ and is sealed to the pouch member 2¹ along a transverse strip 7¹ with a polyvinyl acetate emulsion adhesive. The polyethylene/polyethylene heat-seals between the edges of the pouch member 2¹ and the body of the blank 1¹ are stronger than the adhesive seal 7¹ and polyethylene/aluminium foil heat-seals between the flap member 6¹ and the pouch member 2¹ so that on the flap being peeled open by the consumer, the edges of the pouch are not torn open.

The opened pouch forms a convenient receptacle for the tobacco during the period of consumption, when the flap member protects the opening of the pouch preventing loss of contents or entry of foreign matter.

If it is required to weaken the tearable seals still further, the area of the heat-sealable coating composition at the positions where sealing is to take place may be overprinted before sealing.

The envelopes are conveniently produced initially from a continuous length of material folded as indicated in Figure 1 and Figure 4 and heat-sealed or adhesively secured longitudinally to provide a readily breakable seal. The length of material is then heat-sealed transversely at predetermined intervals and severed adjacent each transverse seal to provide an envelope with a sealed flap and an open mouth at one side.

WHAT WE CLAIM IS:—

1. An envelope comprising a rectangular blank of a flexible wrapping material one side of which is heat-sealable, one end of the blank being folded over against the body of the blank with the heat-sealable side inwards to form a pouch member, the opposite end of the blank being folded over along a line transversely across the body of the blank not covered by the pouch member to form a flap member which overlaps the free end of the pouch member and is sealed to the pouch member along a transverse strip remote from the free end of the flap member, and the edges of the flap member and pouch member being heat-sealed together along one side of the envelope, the seals between the flap member and the pouch member being weaker than the seal between the pouch member and the body of the envelope.

2. An envelope as claimed in Claim 1 in which the wrapping material is a laminate of at least two sheet materials.

3. An envelope as claimed in Claim 2 in which one external sheet component of the laminate is heat-sealable.

4. An envelope as claimed in Claim 3

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in which the heat-sealable external sheet component of the laminate is polyethylene.

5 An envelope as claimed in Claim 1 or Claim 2 in which the wrapping material is coated on one side with a heat-sealable coating composition.

10 6. An envelope as claimed in Claim 5 in which the heat-sealable coating composition is polyvinyl acetate, polyvinyl chloride, a copolymer of polyvinyl acetate and polyvinyl chloride, plasticised nitrocellulose, a vinylidene chloride copolymer, rubber hydrochloride or polyethylene.

15 7. An envelope as claimed in any one of the preceding claims in which the wrapping

material is moistureproof and/or gas impermeable.

8. An envelope in any one of the Claims 1-7 in which the seals securing the flap member to the remainder of the blank are weakened by over-printing prior to sealing.

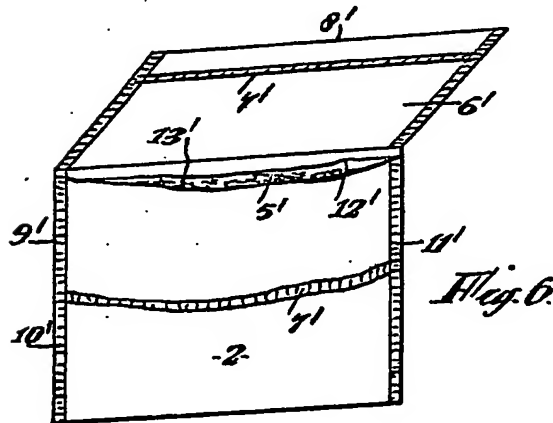
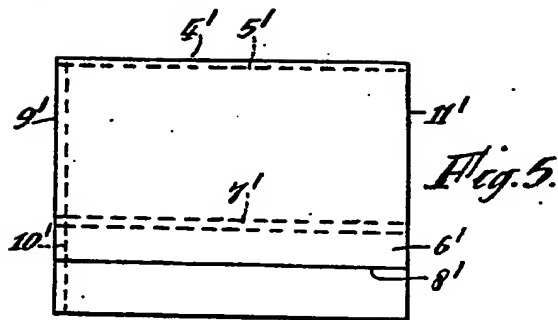
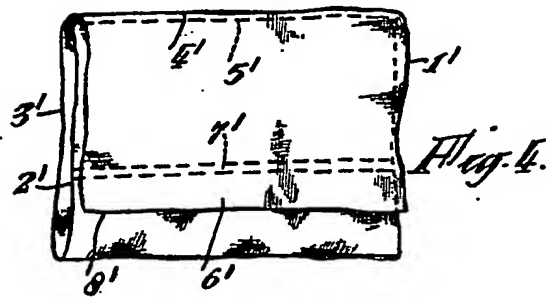
9. An envelope substantially as described with reference to Figures 1, 2 and 3 or to Figures 4, 5 and 6.

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